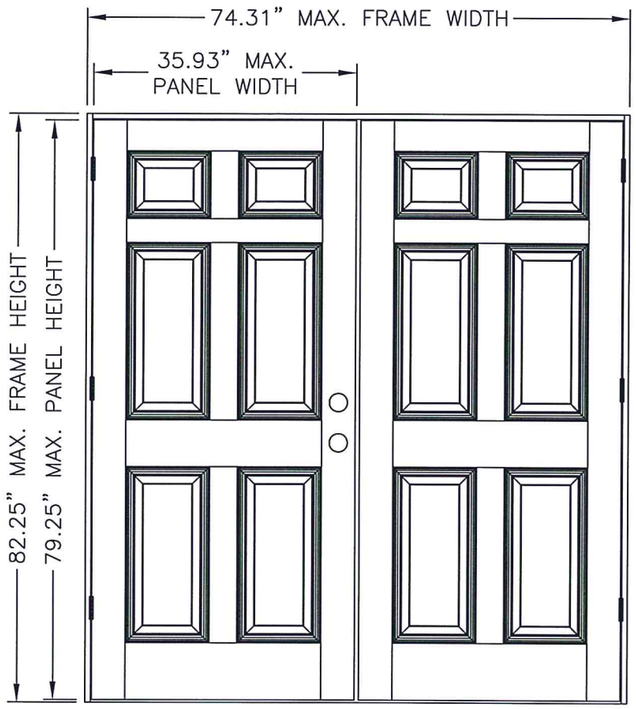
THERMA TRU®

118 INDUSTRIAL DR., EDGERTON, OH 43517
TEL. (419)298-1740

SMOOTH STAR, FIBER CLASSIC, CLASSIC CRAFT & CLASSIC CRAFT RUSTIC

DOUBLE "IMPACT" DOOR INSWING / OUTSWING



"SMOOTH STAR", "CLASSIC CRAFT", "CLASSIC CRAFT RUSTIC" & "FIBER CLASSIC"

EVALUATED FOR USE IN THE STATE OF TEXAS

The Fiberglass Opaque Door described herein complies with the 2006 International Residential Code (IRC), Sections R301 & R613 and the 2006 International Building Code (IBC), Sections 1405.12, 1609, 1714.5, 2403 and 2404 (including Texas revisions) subject to the following conditions:

1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. This system has been tested and evaluated as a large missile impact protective system for installation in the Seaward, Inland I and Inland II areas. This product meets missile level "D" as defined in ASTM E 1996.
3. Allowable design pressure requirements must be equal to or less than the design pressure rating shown in the design pressure chart, sheet 1 of this drawing.
4. Conditions not covered by this drawing are subject to further engineering analysis.
5. Fiber-Classic and Smooth-Star Door and Sidelite panels require the use of "J" part numbers. These door and sidelite panels must be stained or painted within six months of installation.

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10	BILL OF MATERIALS & COMPONENTS

DOOR TYPE	SWING	DESIGN PRESSURE	
		POSITIVE	NEGATIVE
CLASSIC CRAFT	OUTSWING	+70.0	−70.0
	INSWING	+70.0	−70.0
FIBER CLASSIC	OUTSWING	+70.0	−70.0
	INSWING	+70.0	−70.0
SMOOTH STAR	OUTSWING	+70.0	−70.0
	INSWING	+70.0	−70.0
CLASSIC CRAFT RUSTIC	OUTSWING	+70.0	−70.0
	INSWING	+70.0	−70.0

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL, 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: *DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING*

PART OR ASSEMBLY: *TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES*

REVISIONS

NO.	DATE	BY
1	7/16/15	LFS

ADDED GENERAL NOTE 5.

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 1 OF 10

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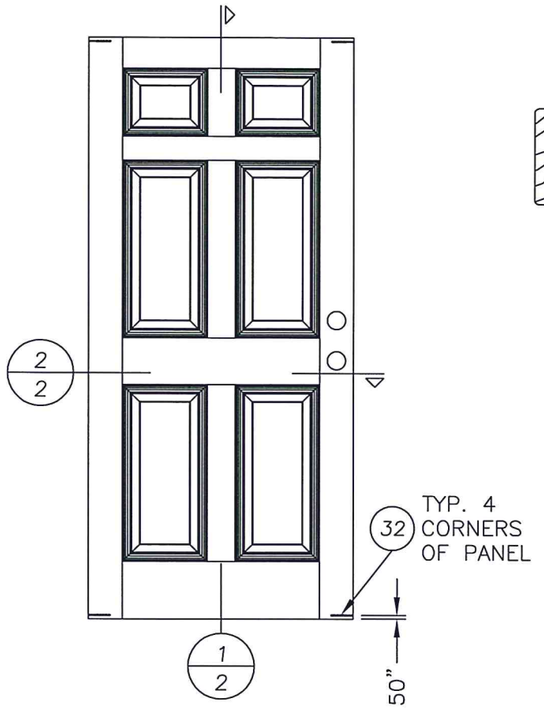
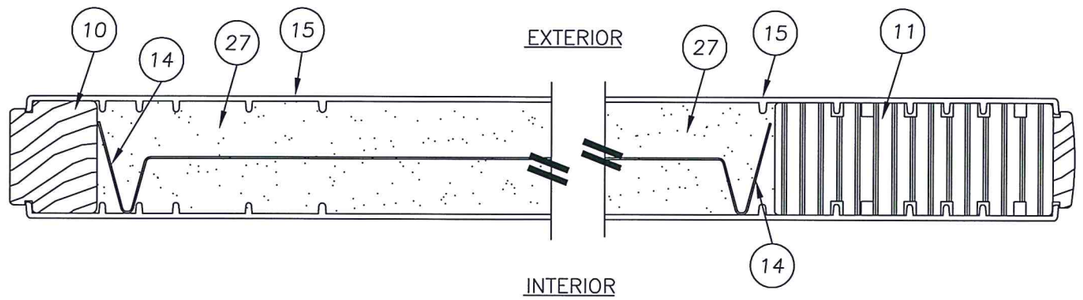
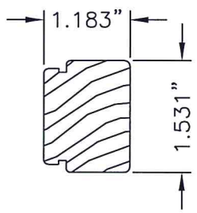
R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 276 - 68 Opaque FG Imp IS - OS Sgls Dbls w-wo Non-Imp SL\C - Drawings\Current\TX-4184-89.dwg, TX-4188

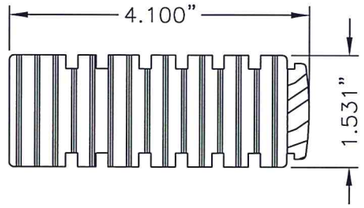


SMOOTH STAR



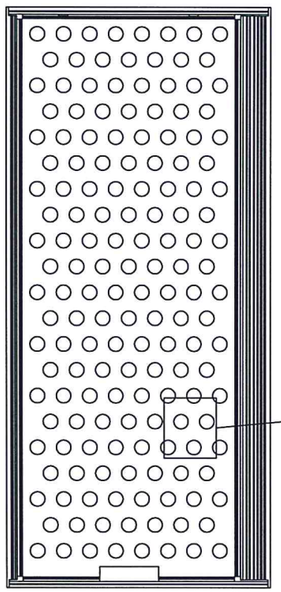
2/2 HORIZONTAL CROSS SECTION
SMOOTH STAR

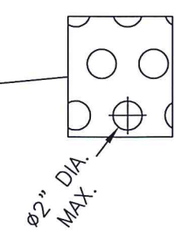




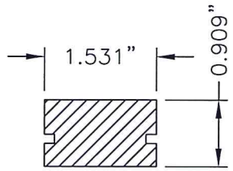
10 HINGE STILE
SMOOTH STAR

11 LOCK STILE
SMOOTH STAR

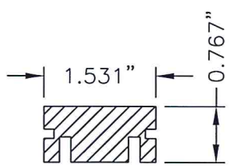




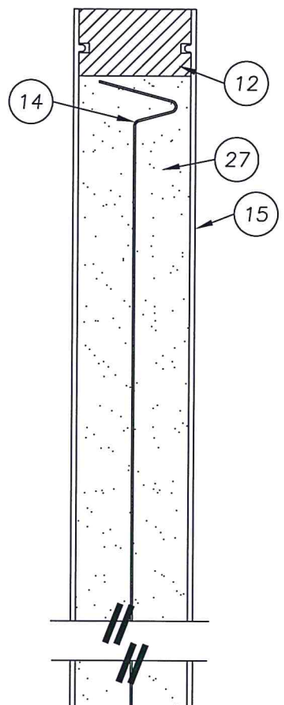
28.86% OPEN
AREA MAX.



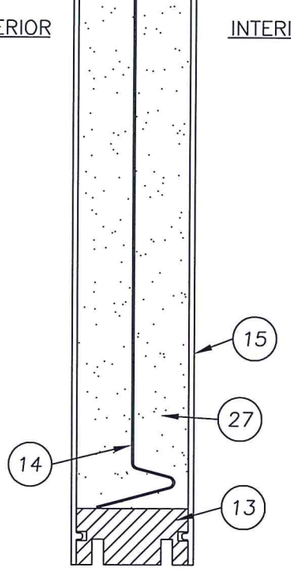
12 TOP RAIL
SMOOTH STAR



13 BOTTOM RAIL
SMOOTH STAR



EXTERIOR INTERIOR



1/2 VERTICAL CROSS SECTION
SMOOTH STAR

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER

7.12.15

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

R|W BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:
DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY:
DOOR PANEL DETAILS
(SMOOTH STAR)

NO.	DATE	REVISIONS	BY
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 2 OF 10

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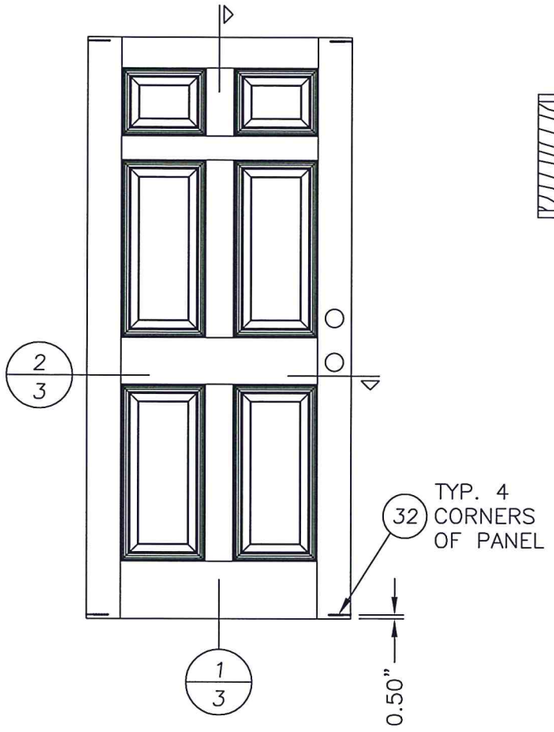
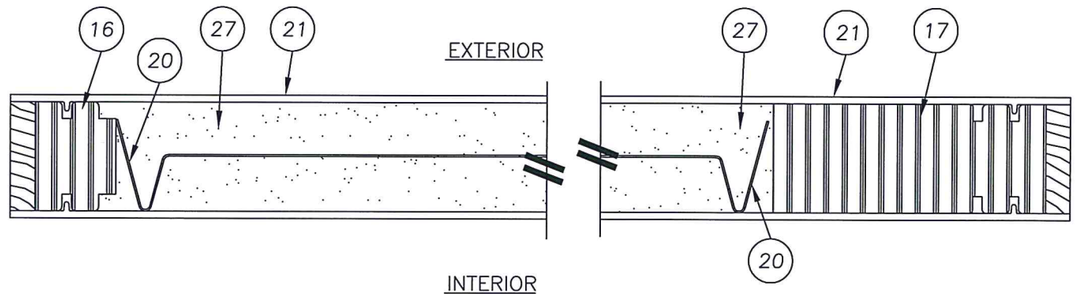


CLASSIC CRAFT



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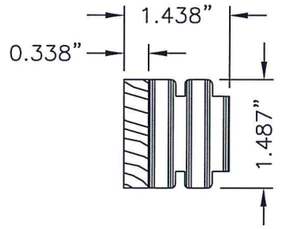
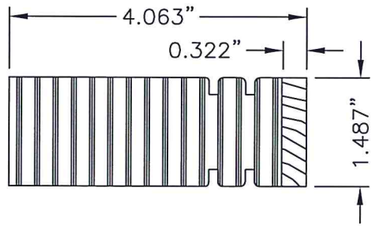
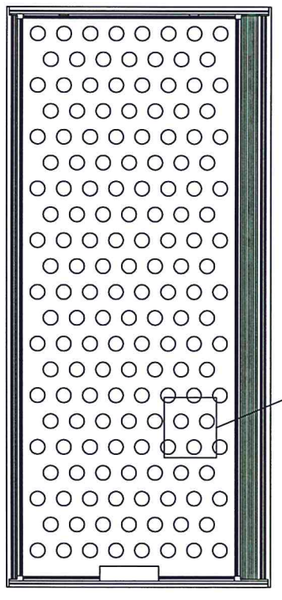
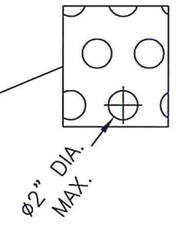


16 HINGE STILE
CLASSIC CRAFT

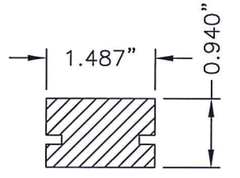


17 LOCK STILE
CLASSIC CRAFT





28.86% OPEN AREA MAX.



18 TOP RAIL
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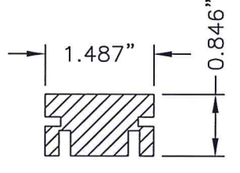

19 BOTTOM RAIL
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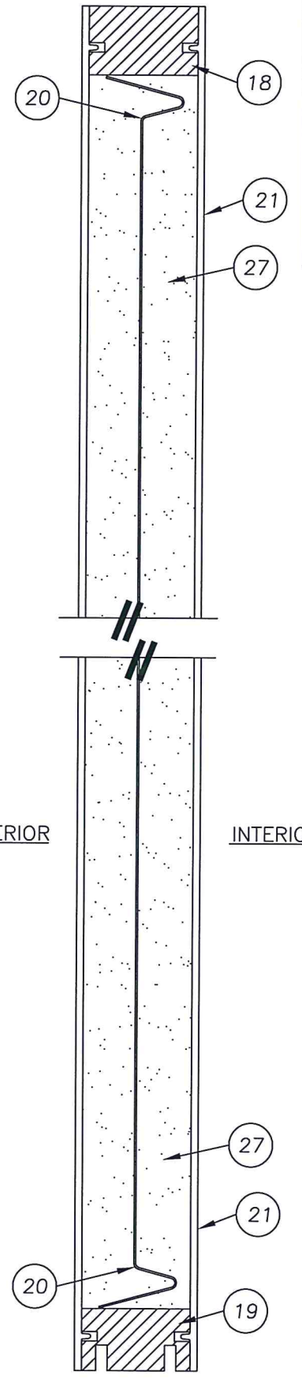
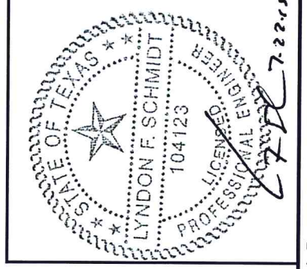


1/3 VERTICAL CROSS SECTION (CLASSIC CRAFT)



7.22.12

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

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P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBEL OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: DOOR PANEL DETAILS (CLASSIC CRAFT)

NO.	DATE	REVISIONS	BY
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 3 OF 10

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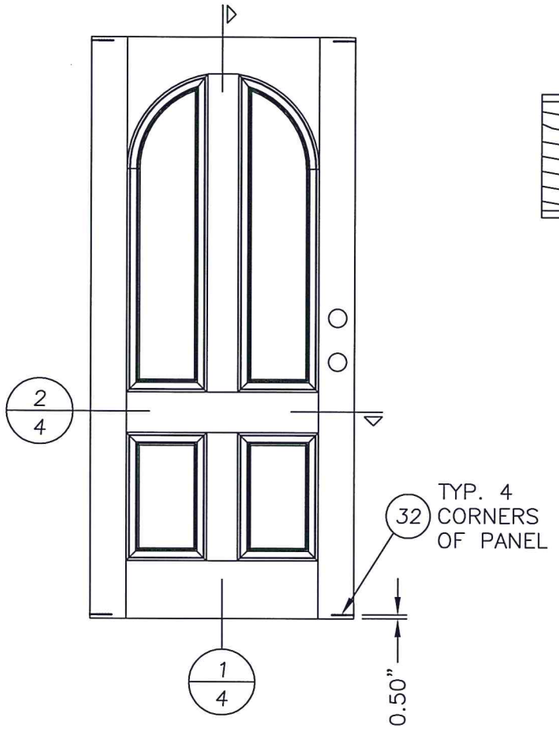
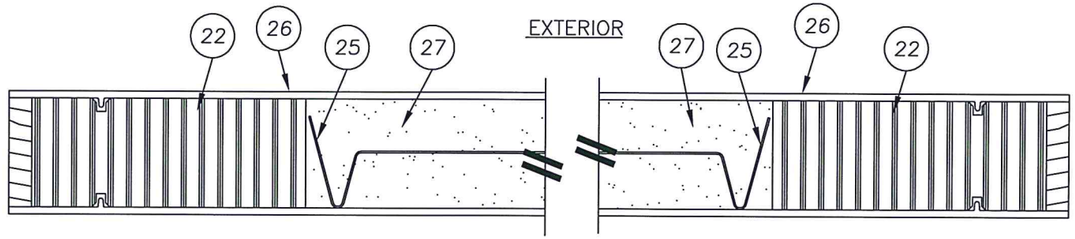
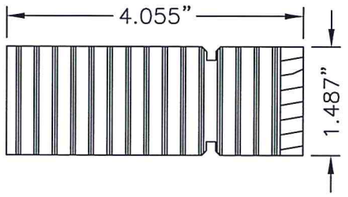


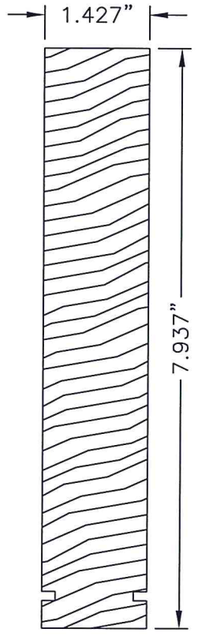
CLASSIC CRAFT RUSTIC



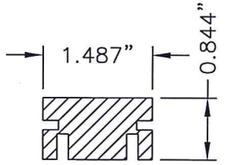
2/4 HORIZONTAL CROSS SECTION (CLASSIC CRAFT RUSTIC)



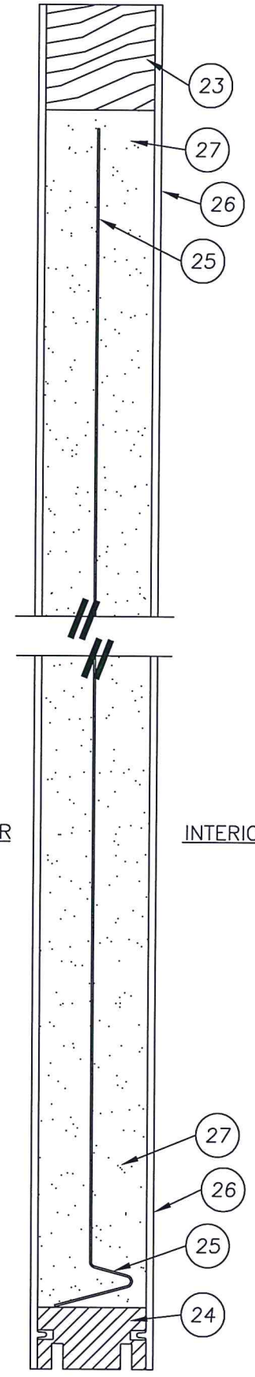
22 LOCK & HINGE STILE CLASSIC CRAFT RUSTIC



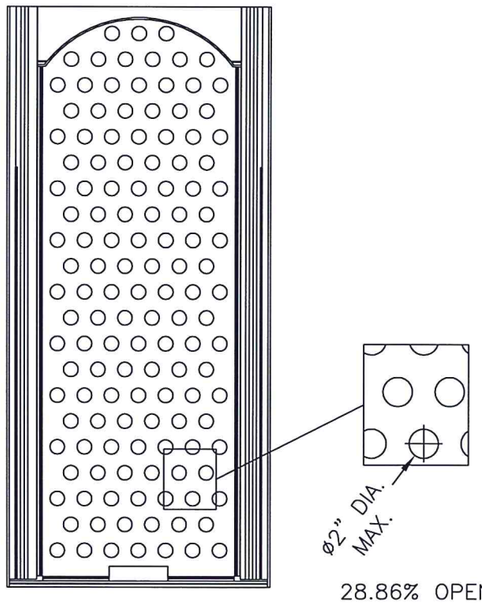
23 TOP RAIL CLASSIC CRAFT RUSTIC



24 BOTTOM RAIL CLASSIC CRAFT RUSTIC



1/4 VERTICAL CROSS SECTION (CLASSIC CRAFT RUSTIC)



28.86% OPEN AREA MAX.

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7-22-15

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: DOOR PANEL DETAILS (CLASSIC CRAFT RUSTIC)

NO.	DATE	REVISIONS	BY
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 4 OF 10

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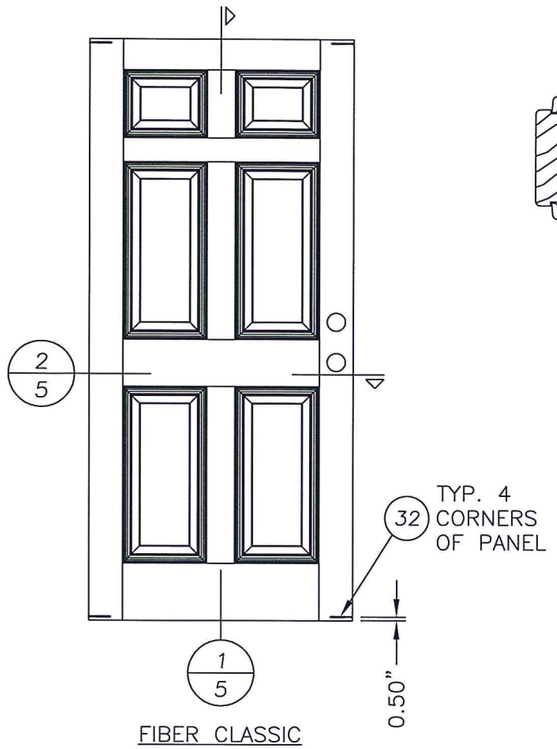
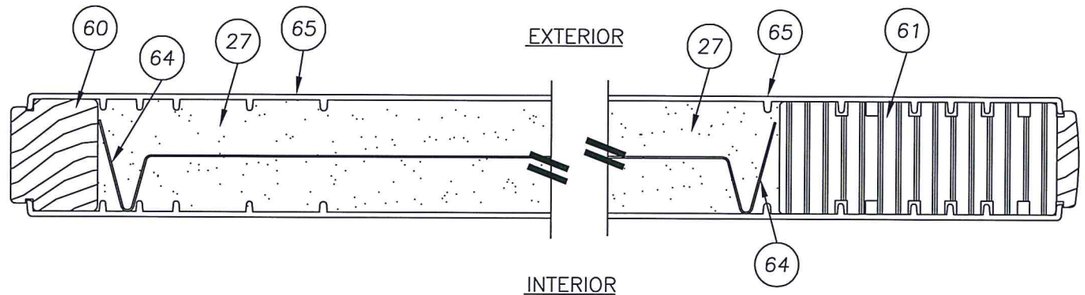
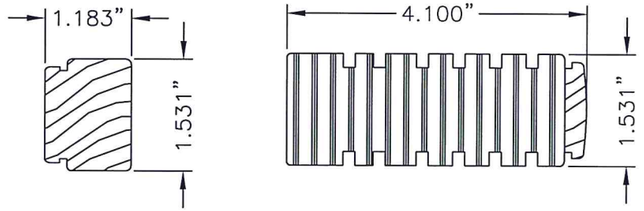


FIBER CLASSIC

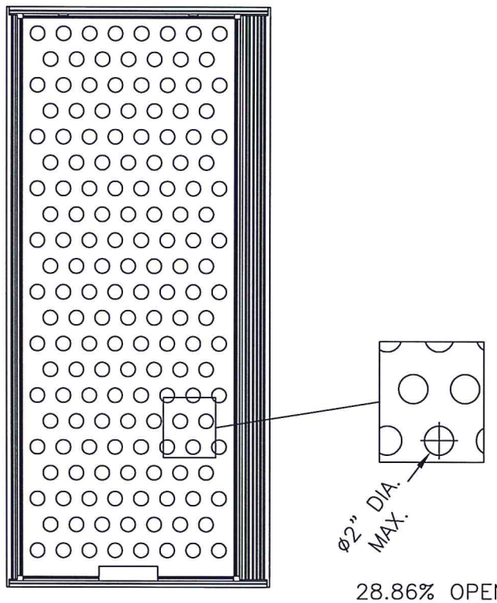


2/5 HORIZONTAL CROSS SECTION
FIBER CLASSIC

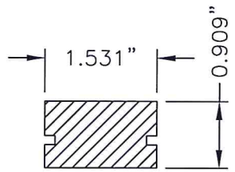


60 HINGE STILE
FIBER CLASSIC

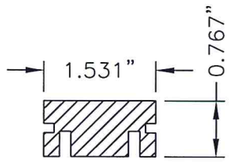
61 LOCK STILE
FIBER CLASSIC



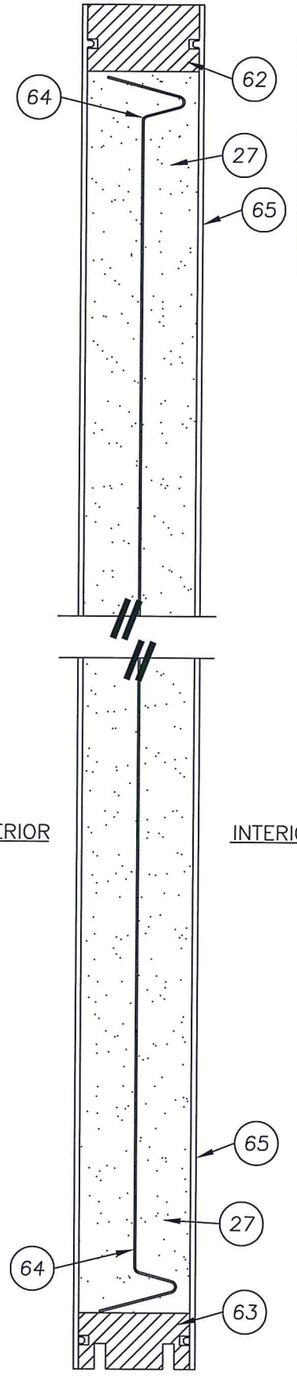
28.86% OPEN
AREA MAX.



62 TOP RAIL
FIBER CLASSIC



63 BOTTOM RAIL
FIBER CLASSIC



1/5 VERTICAL CROSS SECTION
FIBER CLASSIC

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
7.22.15

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL, 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:
DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY:
DOOR PANEL DETAILS
(FIBER CLASSIC)

NO.	DATE	REVISIONS	BY
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 5 OF 10

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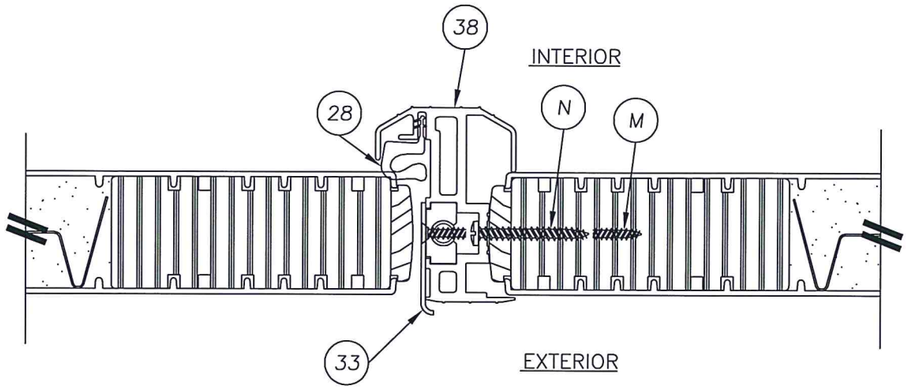
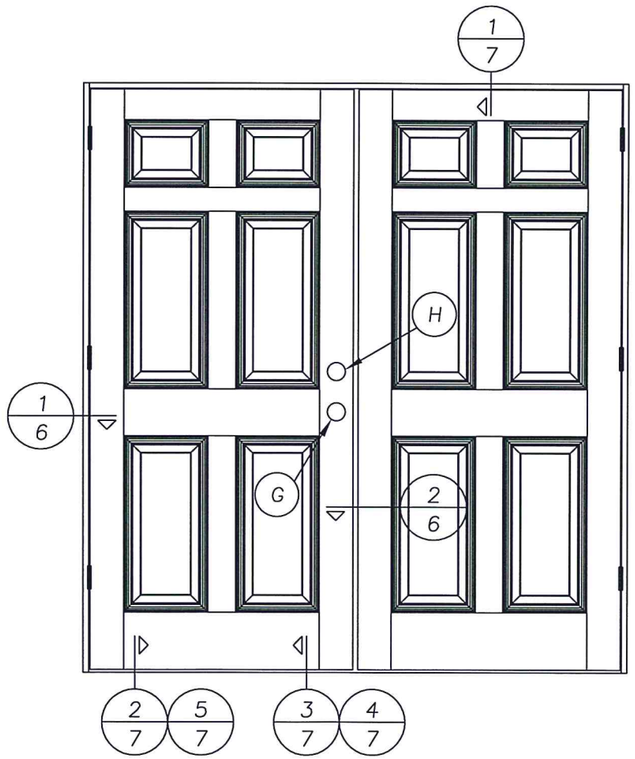
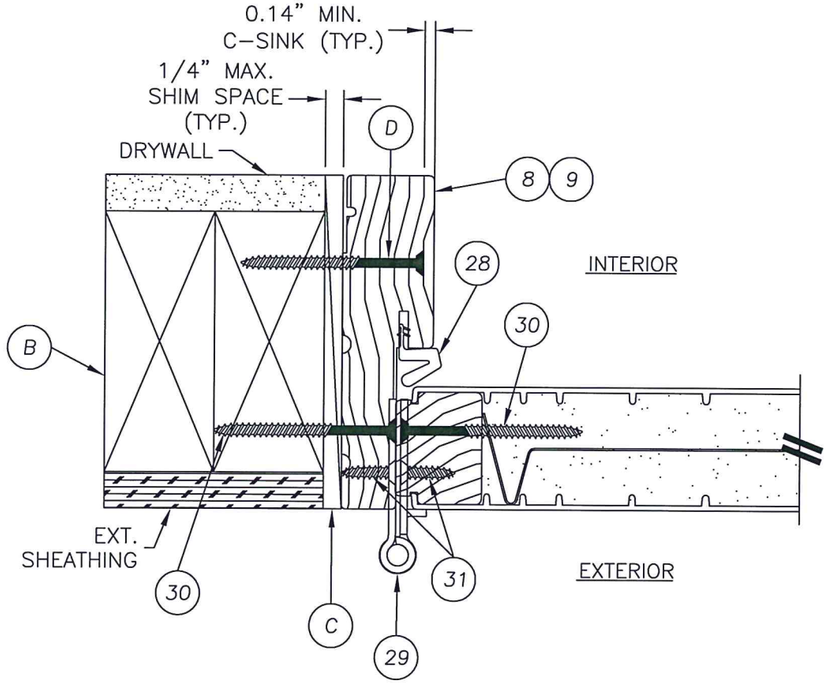


2/6 HORIZONTAL CROSS SECTION

OUTSWING SHOWN – INSWING ALSO APPROVED
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES





1/6 HORIZONTAL CROSS SECTION

OUTSWING SHOWN – INSWING ALSO APPROVED
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
7.22.15

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P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F–11852

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX–4188
SHEET 6 OF 10

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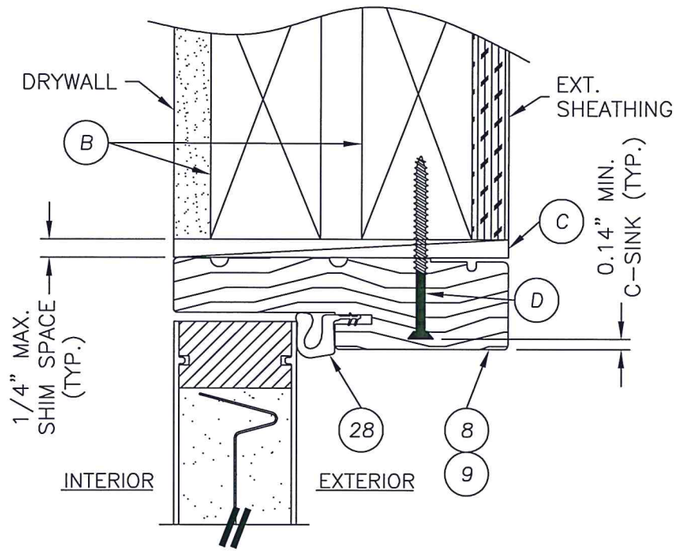
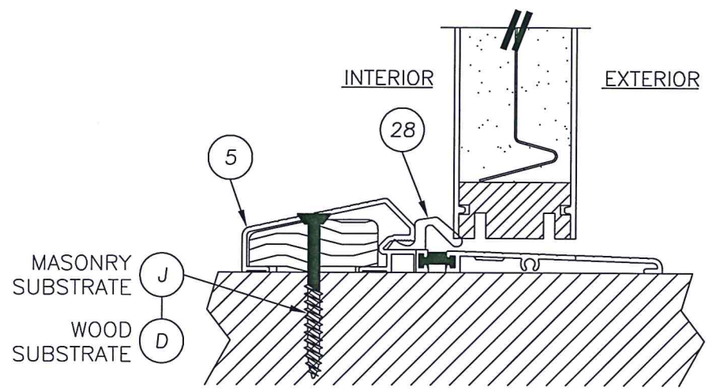
R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 276 - 68 Opaque FG Imp IS - OS Sgls Dbls w-wo Non-Imp SLC - Drawings\Current\TX-4184-89.dwg, FXX6



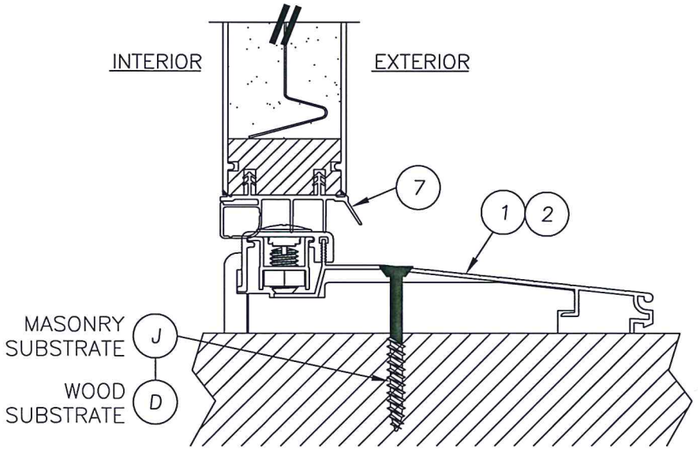
1/7 VERTICAL CROSS SECTION

INSWING SHOWN – OUTSWING ALSO APPROVED
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



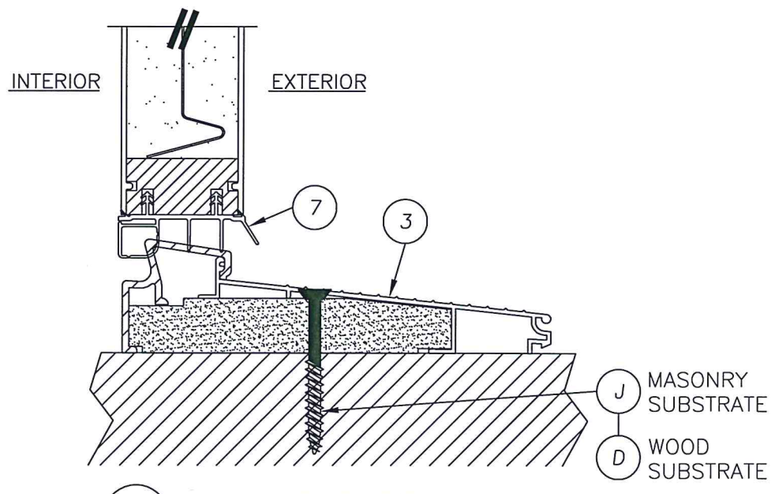
2/7 VERTICAL CROSS SECTION

@ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



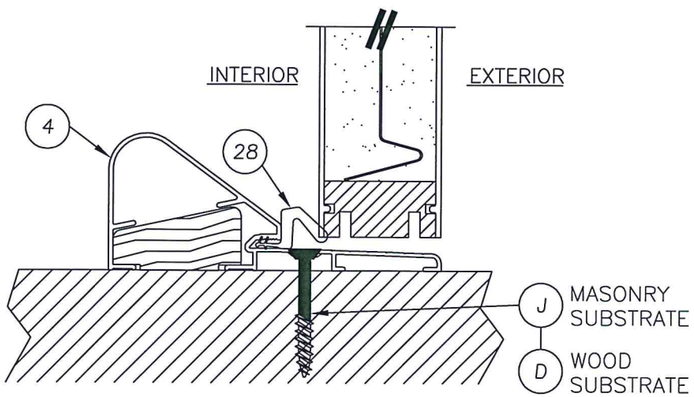
3/7 VERTICAL CROSS SECTION

@ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



4/7 VERTICAL CROSS SECTION

@ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



5/7 VERTICAL CROSS SECTION

@ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES

STATE OF TEXAS ★★★ LYNDON F. SCHMIDT 104123 LICENSED PROFESSIONAL ENGINEER

7-22-15

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 07/17/12
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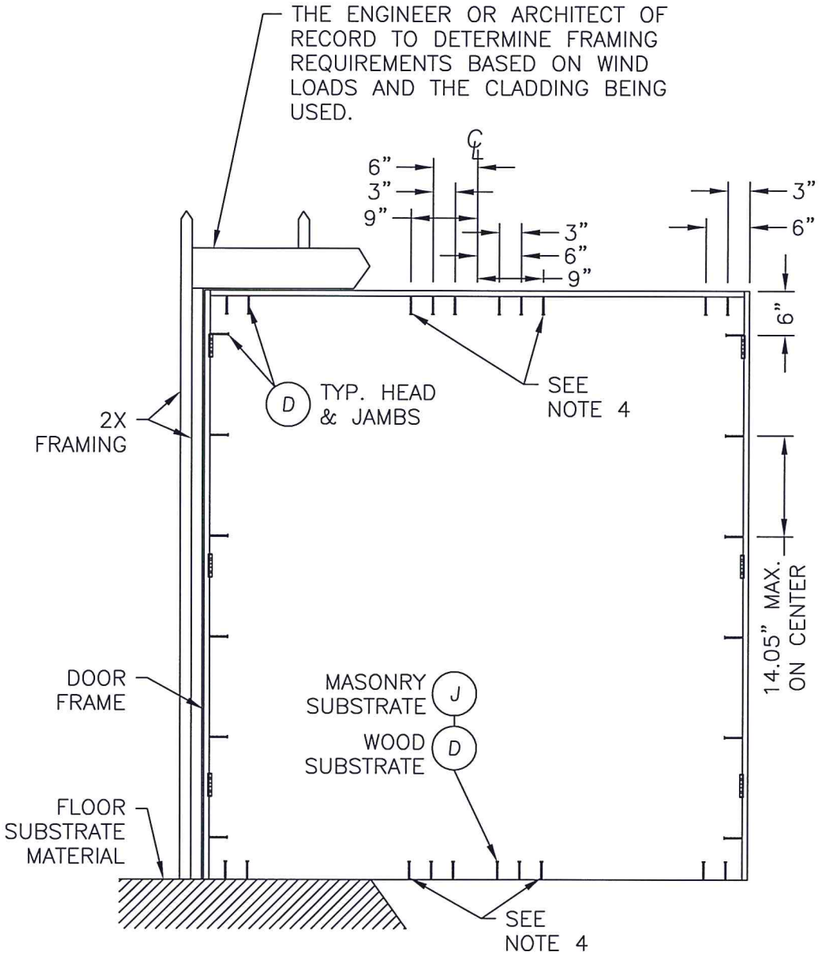
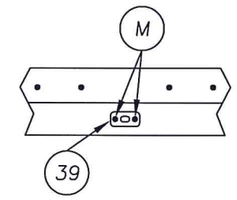
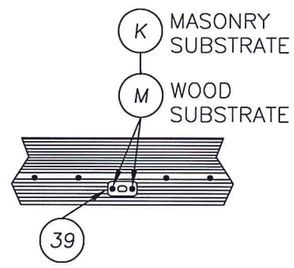


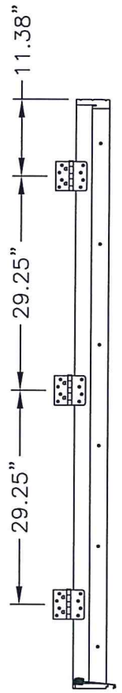
FRAME ANCHORING



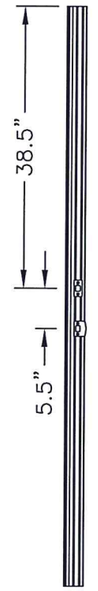
ASTRAGAL STRIKE PLATE @ HEAD



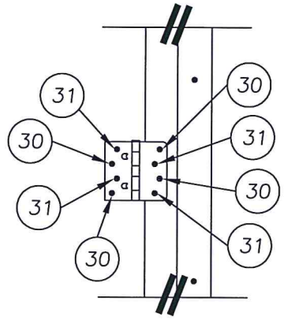
ASTRAGAL STRIKE PLATE @ THRESHOLD



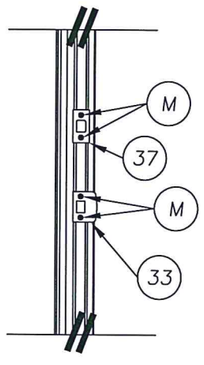
HINGE DETAIL



STRIKE PLATE DETAIL DOUBLE DOOR



HINGE DETAIL



STRIKE PLATE DETAIL

CONCRETE ANCHOR NOTES:

1. *Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.*
2. *Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.*
3. *Concrete anchor table:*

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	3/16" 1/4"	1-3/4" 1-3/4"	2-5/8" 2-1/2"	1-1/8" 3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"

4. THESE SCREWS ARE REQUIRED ONLY WHEN THE DP EXCEEDS 50 PSF.

STATE OF TEXAS — LYNDON F. SCHMIDT — 104123 — LICENSED PROFESSIONAL ENGINEER — 7-22-15

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

R|W BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197

TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: *DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING*

PART OR ASSEMBLY: *FRAME ANCHORING*

NO.	DATE	REVISIONS	BY
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 8 OF 10

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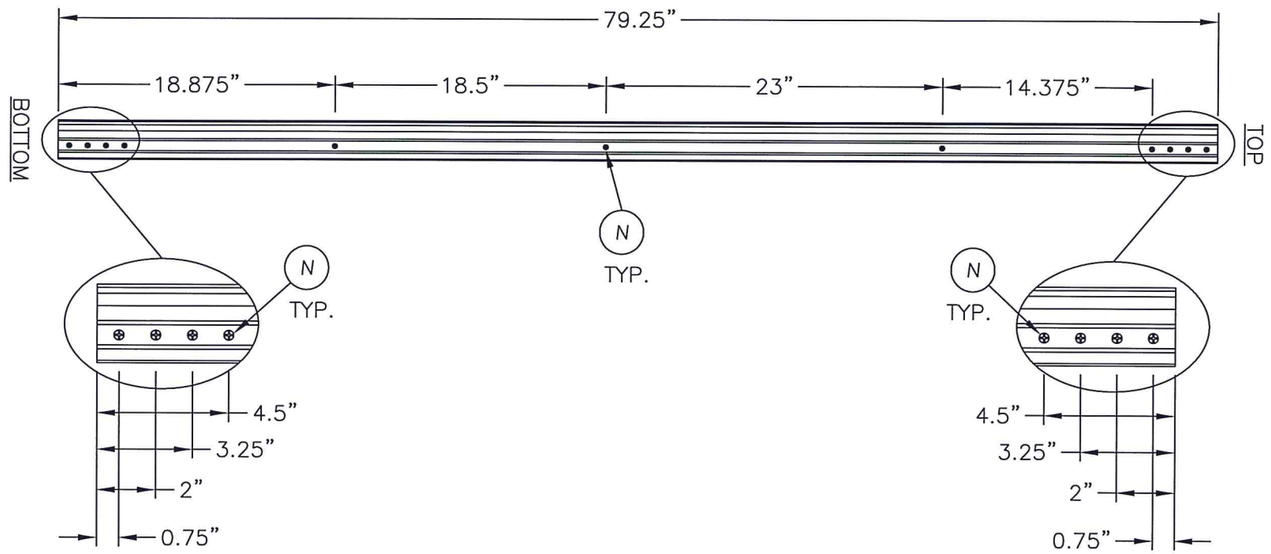

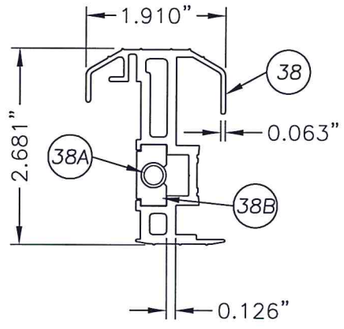

38 ASTRAGAL DETAIL

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: ASTRAGAL DETAILS

NO.	DATE	REVISIONS	BY
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SHEET 9 OF 10

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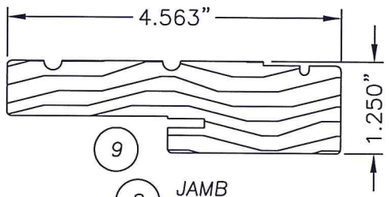
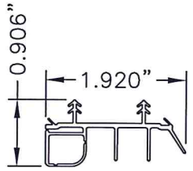
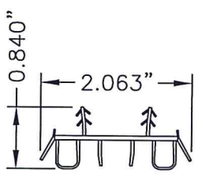
BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
B	2X FRAMING (G >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	WOOD
D	#10 X 2-1/2" PFH WOOD SCREW	STEEL
G	KWIKSET 200 SERIES PASSAGE LOCK	STEEL
H	KWIKSET 600 SERIES DEADBOLT	STEEL
J	1/4" ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
K	3/16" ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
M	#8 X 3" PFH SCREW (STRIKE PLATES @ HEAD & SILL)	STEEL
N	#10 X 1-1/2" PPH SCREW ASTRAGAL TO PANEL	STEEL
1	INSWING ADJUSTABLE THRESHOLD (IS300AJ)	ALUM./WOOD
2	INSWING THRESHOLD (IS300HP5)	–
3	INSWING SELF ADJUST THERMAL BREAK THRESHOLD (ISP30M)	ALUM./COMP.
4	OUTSWING COASTAL THRESHOLD	ALUM./WOOD
5	OUTSWING STANDARD THRESHOLD	ALUM./WOOD
7	DOOR BOTTOM SWEEP	VINYL
8	JAMB (PINE)	WOOD
9	JAMB (OAK)	WOOD
10	HINGE STILE (SMOOTH STAR)	WOOD
11	LOCK STILE (SMOOTH STAR)	LVL/WOOD
12	TOP RAIL (SMOOTH STAR)	PVC
13	BOTTOM RAIL (SMOOTH STAR)	PVC
14	PANEL REINFORCEMENT 0.023" THK. (SMOOTH STAR)	STEEL
15	DOOR SKIN 0.070" THK. (SMOOTH STAR) Fy = 6,000 PSI MIN.	FIBERGLASS
16	HINGE STILE (CLASSIC CRAFT)	WOOD/LVL
17	LOCK STILE (CLASSIC CRAFT)	WOOD/LVL
18	TOP RAIL (CLASSIC CRAFT)	PVC
19	BOTTOM RAIL (CLASSIC CRAFT)	PVC
20	PANEL REINFORCEMENT 0.023" THK. (CLASSIC CRAFT)	STEEL
21	DOOR SKIN 0.090" THK. (CLASSIC CRAFT) Fy = 6,000 PSI MIN.	FIBERGLASS
22	LOCK & HINGE STILE (CLASSIC CRAFT RUSTIC)	WOOD/LVL
23	TOP RAIL (CLASSIC CRAFT RUSTIC)	WOOD
24	BOTTOM RAIL (CLASSIC CRAFT RUSTIC)	PVC
25	PANEL REINFORCEMENT 0.023" THK. (CLASSIC CRAFT RUSTIC)	STEEL
26	DOOR SKIN 0.090" THK. (CC RUSTIC) Fy = 6,000 PSI MIN.	FIBERGLASS
27	FOAM CORE	POLYURETHANE
28	WEATHERSTRIP	FOAM
29	HINGE	STEEL
30	#10 X 2-1/2" PFH SCREW	STEEL
31	#10 X 3/4" PFH SCREW	STEEL
32	#9 X 3" PFH WOOD SCREW	STEEL
33	LATCH STRIKE PLATE	STEEL
37	DEADBOLT STRIKE PLATE	STEEL
38	ASTRAGAL	ALUMINUM
38A	ASTRAGAL FLUSH BOLT	STEEL
38B	ASTRAGAL FLUSH BOLT RETAINER	ALUMINUM
39	ASTRAGAL STRIKE PLATE @ HEAD & THRESHOLD	STEEL



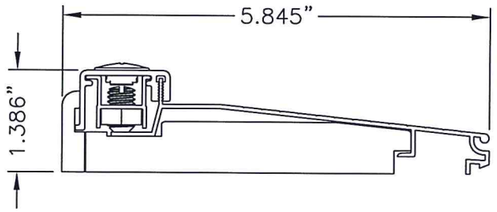
9 / 8 JAMB



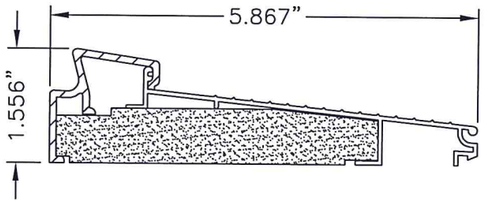
7 SWEEP



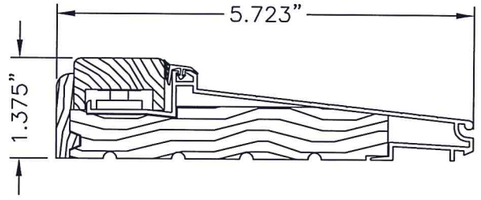
52 SWEEP



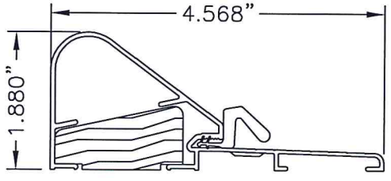
2 THRESHOLD
INSWING ADJUSTABLE



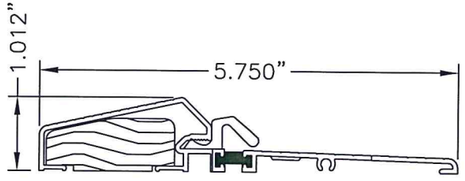
3 THRESHOLD
INSWING SELF-ADJUST



1 THRESHOLD
INSWING ADJUSTABLE



4 THRESHOLD
OUTSWING COASTAL



5 THRESHOLD
OUTSWING STANDARD

BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
60	HINGE STILE (FIBER CLASSIC)	WOOD
61	LOCK STILE (FIBER CLASSIC)	LVL/WOOD
62	TOP RAIL (FIBER CLASSIC)	PVC
63	BOTTOM RAIL (FIBER CLASSIC)	PVC
64	PANEL REINFORCEMENT 0.023" THK. (FIBER CLASSIC)	STEEL
65	DOOR SKIN 0.072" THK. (FIBER CLASSIC) Fy = 6,000 PSI MIN.	FIBERGLASS

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7-22-15

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

REVISIONS

NO.	DATE	BY
1	7/16/15	LFS
	ADDED GENERAL NOTE 5.	

DATE: 07/17/12
SCALE: N.T.S.
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